GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Tribal Welfare Department – Education – Implementation of Energy Efficiency Project in all the Schools and Hostel Buildings of Tribal Welfare Department, Andhra Pradesh - Permission – Revised Orders Issued.

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3. The EESL, New Delhi has furnished the following proposal along with the estimates of consumption and savings, if the existing conventional Electrical Equipment is replaced with Energy Efficient Electrical Equipment.

New Item	**Per Unit Watt, W**	**New Annual Energy KWh**	**New Annual Energy KVAh**	**Annual Savings KVAh**	**Apportioned monthly energy savings in units**	**Apportioned Monthly cost in Rs.**
Proposed Fixtures/ Fans/ ACs					**Calculations**	
20W LED Tube Light	20	20,40,889	20,40,889	32,65,422	2,72,119	19,81,023
LED Bulb 9W	9	9,40,618.01	9,40,618	32,39,906	2,69,992	19,65,543
50W Energy Efficient Fan	50	62,87,936	62,87,936	25,15,174	2,09,598	15,25,872
18W LED Light	18	2,40,699	2,40,699	4,54,653	37,888	2,75,823
35W LED Light	35	1,62,191	1,62,191	2,31,702	19,309	1,40,566
70W LED Light	70	3,24,383	3,24,383	4,40,234	36,686	2,67,075
Grand Total of New Energy Consumption(KB-I, KB-II, KB-III)			**99,96,715**	**1,01,47,092**	**8,45,591**	
Tariff			**7.28**			
New Annual Cost Estimation			**7,27,76,087**			
Difference in KVAH		1,01,47,092				
Difference in Cost Estimated		7,38,70,827				

S. No	**Existing Fixtures**	**New Fixtures**	**Number**	**Unit Cost**	**Total Rs.**
1.	40W Tube Light	20W LED Tube Light	42,948	355	1,52,46,540
2.	40W/ 60W Incandescent Bulb	LED Bulb 9W	43,987	100	43,98,700
3.	Ceiling Fan	50W Energy Efficient Fan	30,245	1500	4,53,67,500
4.	Outdoor Light 40W	18W LED Light	3,053	1492	45,55,076
5.	Outdoor Light 70W	35W LED Light	1,058	1982	20,96,956
6.	Outdoor Light 150W	70W LED Light	1,058	3752	39,69,616
	Grand Total Material Charges				**7,56,34,388**
	EESL admin and PMC charge for 3 year contract @20%				**1,51,26,878**
	TOTAL ESTIMATED COST				**9,07,61,266**

S. No	HEAD	UNIT	Values
1.	Estimated Energy Savings	KV Ah	1,01,47,092
2.	Fixed Tariff, Rs. Per kV Ah/KWH	Rs. per KV Ah	7.28
3.	Estimated Annual Cost Savings w.r.t Electricity bills	Rs. per year	7,38,70,827
4.	AMC getting free for Client in Air conditioning Rs.800/AC/Annum	Rs. per year	0
5.	Total Cost Savings (S.No 3 + S.No.4)	Rs. per year	7,38,70,827
6.	Investment, Rs.	Rs.	7,56,34,388
7.	EESL PMC fee & repair and maintenance	Rs.	1,51,26,878
8.	Estimated Capital Cost of the Project	Rs.	9,07,61,266
9.	Equity Portion (20% of Capital Cost)	Rs.	1,81,52,253
10.	Return on Equity 21.41% per annum)	Rs.	69,14,945
11.	Debt portion (80% Cost of Capital)	Rs.	7,26,09,012
12.	Debt Interest (9.5% per annum)	Rs.	1,16,90,729
13.	Total Estimated Repayment to be made by TWD to EESL (9+10+11+12)	Rs.	10,93,66,940
14.	Contract Period	Years	3
15.	Payout to EESL annually (13/14)	Rs.	3,64,55,647
16.	EESL Share (15/5)	%	49%
17.	EESL Quarterly repayment	Rs.	91,13,912
18.	No. of repayments	Quarterly	12

4. In addition to the terms and conditions furnished in the reference 4th read above, the following conditions are also incorporated:

a. The Electrical Fixtures in the new buildings which are constructed in the past two years shall not be replaced.
b. The final costing shall be based on replacement of actual No of fixtures.

5. The Director, Tribal Welfare, Vijayawada has requested the Government to issue revised orders for replacement of Electrical Equipment in all the Schools and Hostel Buildings of TW Department, as per the revised proposal.

6. After careful examination of the revised proposal of the DTW, Vijayawada, Government hereby accord permission to the Director of Tribal Welfare, A.P., Vijayawada for implementation of Energy Efficiency Project in all the Schools and Hostel Buildings of Tribal Welfare Department and to enter into the agreement with APSEEDCO and EESL as per the terms and conditions mentioned above.

7. The Director of Tribal Welfare, A.P., Vijayawada shall take necessary action accordingly and ensure the proper monitoring of the implementation of the Project in coordination with the APSEEDCO and EESL and send the status report to Government every month.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

SHAMSHER SINGH RAWAT
PRINCIPAL SECRETARY TO GOVERNMENT (TW)

To
The Director of Tribal Welfare, AP, Vijayawada.
The APSEEDCO, Vijayawada.

Copy to

The Principal Secretary to Government (Energy & I & I) Department.
The P.S to Hon'ble Minister(SWE & TWE).
The P.S to Principal Secretary to Government (TW).
The Joint Secretary to Government (TW).
SF/SC.

//FORWARDED BY ORDER//

SECTION OFFICER